

REMARKS

Claims 1-8 are pending in this application, of which claim 1 has been amended. No new claims have been added.

The Examiner has objected to the drawings for failing to show element "31b" found on page 11, lines 12 and 19 of the specification. Fig. 2 shows this element as "30b". Accordingly, the specification has been amended to so identify this element.

The Examiner has objected to the specification for other informalities which have been corrected in the aforementioned amendments.

Claim 1 stands rejected under 35 USC §103(a) as unpatentable over U.S. Patent 4,870,930 to Yagi (hereinafter "Yagi") in view of U.S. Patent 6,085,704 to Hara (hereinafter "Hara").

Applicants respectfully traverse this rejection.

Yagi discloses a control apparatus for an intake valve and/or an exhaust valve which are slidably mounted for reciprocating movement relative to a valve seat in a cylinder head including an electromagnetic solenoid fixed to the cylinder head and a magnetic pole fixed to at least one of the valves with the magnetic pole opposing the solenoid with a small gap therebetween when the valve is in the open position and a control device for supplying electric current to the electromagnetic solenoid in a predetermined manner responsive to engine operation conditions. The valve is moved to the open position by a cam, electric current is supplied to the

electromagnetic solenoid to hold the valve in the open position for a predetermined time and the valve is closed by a return spring when the electromagnetic solenoid is deenergized.

Yagi fails to disclose a holding rod connected to the armature of the valve stem, but the Examiner has cited Hara for teaching this feature.

Applicants respectfully disagree. Hara discloses an electromagnetically operating actuator including a casing (29) that accommodates an armature (30), a valve-closing electromagnet (32), a valve-opening electromagnet (32), and a valve-opening spring (33). The casing is fixed to an upper face of a cylinder head (21) in which an intake valve (23) and a valve lifter (27) are slidably moveable. A valve-closing spring (28) is installed between the valve lifter and a bottom face of a retention hole (21a). Further, a transmission cam (46) with first and second cam surfaces (51, 52) is interposed between the valve lifter and a tappet (39) connected with the center of the armature through a tappet shaft (38). The transmission cam is pivotable upward and downward. A hydraulic lash adjuster (47) associated with the transmission cam is disposed within the casing.

If, arguendo, the tappet 39 corresponds to the holding rod of the instant application, it would not be obvious to add this feature to the apparatus of Yagi because in Yagi the electromagnetic actuator 11 acts directly on the valve stem, and not through a holding rod. In the present invention, the holding rod is utilized both in the electromagnetic actuation operation and the hydraulic damping action. In Hara the tappet 39 is used only in the electromagnetic actuation.

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Response to Office Action dated March 25, 2004

Accordingly, claim 1 has been amended to recite this distinction, and the 35 USC §103(a) rejection should be withdrawn.

The Examiner has indicated that claims 2-8 would be allowable if rewritten in independent form. Applicants respectfully defer this action until a FINAL Office Action, if any, is received.

In view of the aforementioned amendments and accompanying remarks, claims 1-8, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Substitute Abstract of the Disclosure

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ABSTRACT OF THE DISCLOSURE:

An engine valve train having a camshaft supported on a camshaft holder and driving inlet valves to open and close via inlet rocker arms; an electromagnetic actuator mechanism including an armature; a holding rod connected to the armature and pressing against a stem end of the inlet valve so as to hold the inlet valve in an open state; and, a hydraulic damper mechanism absorbing an impact which is generated by the inlet valve when the inlet valve is released from being held by the electromagnetic actuator mechanism so as to be restored to a closed state and is then seated, wherein the hydraulic damper mechanism is supported on the camshaft holder.